MINUTES
of the
FOURTH MEETING
of the
WATER AND NATURAL RESOURCES COMMITTEE

October 15-16, 2015
Ruidoso Downs Racetrack
Ruidoso Downs

The fourth meeting of the Water and Natural Resources Committee was called to order by Senator Peter Wirth, chair, at 9:35 a.m. on Thursday, October 15, 2015, at the Ruidoso Downs Racetrack in Ruidoso Downs.

Present
Sen. Peter Wirth, Chair (Oct. 15)
Rep. Candy Spence Ezzell, Vice Chair
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Randal S. Crowder
Rep. Dona G. Irwin
Rep. Matthew McQueen
Sen. Cliff R. Pirtle
Sen. Benny Shendo, Jr.
Rep. Jeff Steinborn
Rep. James R.J. Strickler (Oct. 15)
Sen. Pat Woods

Absent
Rep. James Roger Madalena
Rep. Javier Martínez
Rep. Andy Nunez
Sen. Sander Rue
Sen. Mimi Stewart

Advisory Members
Sen. Carlos R. Cisneros
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. Nora Espinoza
Rep. David M. Gallegos (Oct. 16)
Rep. Bealquin Bill Gomez
Sen. Ron Griggs (Oct. 15)
Rep. Jimmie C. Hall
Rep. Larry A. Larrañaga
Rep. Rick Little (Oct. 16)
Sen. Linda M. Lopez (Oct. 15)
Rep. Bill McCamley
Sen. Cisco McSorley
Sen. Gerald Ortiz y Pino
Sen. Mary Kay Papen
Sen. Nancy Rodriguez (Oct. 16)
Sen. Ted Barela
Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. George Dodge, Jr.
Rep. Brian Egolf
Sen. Stuart Ingle
Rep. D. Wonda Johnson
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Rep. Tim D. Lewis
Rep. Stephanie Maez
Sen. Steven P. Neville
Rep. G. Andrés Romero
Sen. John C. Ryan
Rep. Tomás E. Salazar
Sen. William E. Sharer

Rep. James G. Townsend
Rep. Don L. Tripp (Oct. 16)
Rep. Bob Wooley
Rep. John L. Zimmerman (Oct. 16)

Sen. John Arthur Smith

Guest Legislators
Rep. Alonzo Baldonado (Oct. 16)
Rep. Kelly K. Fajardo (Oct. 16)
Rep. Jason C. Harper (Oct. 16)
Rep. Debbie A. Rodella (Oct. 16)

(Attendance dates are noted for those members not present for the entire meeting.)

Staff
Jon Boller, Legislative Council Service (LCS)
Gordon Meeks, LCS
Jeret Fleetwood, LCS
Alexandria Tapia, LCS

Guests
The guest list is in the meeting file.

Handouts
Handouts and other written testimony can be found in the meeting file or on the New Mexico Legislature's website at www.nmlegis.gov.

Thursday, October 15

Forest and Watershed Restoration
Tony Delfin, New Mexico state forester, described the work that the Forestry Division of the Energy, Minerals and Natural Resources Department has been conducting on forest and watershed restoration over the past year, and in particular the work being done under the 2015 Watershed Restoration Initiative, which involves an allocation of $6.2 million to begin treating 7,700 acres in 14 high-priority watersheds in New Mexico. He showed the committee a map listing completed and ongoing watershed treatment projects, noting that almost 3,000 acres have been treated since October 2014. The 2016 initiative includes approximately $8.5 million to restore 11,000 acres statewide, he explained. Mr. Delfin also said that planning, funding and coordination of the projects have come from a number of agencies and partnerships, including the U.S. Forest Service, the Department of Game and Fish, the State Land Office, The Nature Conservancy, several conservancy districts and some tribal entities.

Laura McCarthy, The Nature Conservancy, explained that over the past few years, there has been an increased appreciation of the necessity of working together to address forest and

watershed health at all levels of government and between the public and private sectors. She gave examples of successful cooperative projects that have been conducted in the Manzano Mountains, the Carson National Forest and the Taos area, but she emphasized that significant scaling up will be necessary in order to avoid a catastrophic wildfire season like 2011. Ms. McCarthy went on to say that most of the partners in the initiative realize they have shared priorities and that finding long-term funding for forest and watershed treatment is the last piece of the puzzle.

Senator Shendo, speaking on behalf of the Jemez Community Development Corporation, said that forest and watershed restoration efforts began in the Jemez Mountains in 2002 as the U.S. Department of Energy sought to thin the forest around Los Alamos. He explained that the development corporation has created economic development by finding markets for the trees harvested from forest treatments. Senator Shendo noted that the development corporation had recently purchased a micromill to turn small-diameter trees into usable products like wood flooring. He also discussed a five-year project to treat 200,000 acres, noting that securing at least 10 to 12 years of funding is the key to these kinds of projects. Senator Shendo emphasized that although federal legislation has authorized some funding for forest and watershed treatment, there is a tremendous amount of forest land that needs treatment.

Aron Balok, water resource specialist for the Pecos Valley Artesian Conservancy District, said there are 110,000 irrigated acres in the conservancy district, noting that it uses mostly ground water for irrigation. However, he explained that most of the 11 million acres of watershed feeding the district is in need of some treatment, pointing out that even juniper trees are a major problem. Mr. Balok also discussed development of treatment methods for watersheds, including newer chemical and charged particle technologies.

Brent Racher, president, New Mexico Forest Industry Association, explained that most stakeholders and policymakers have come to understand the importance of forest and watershed restoration. However, he emphasized the massive scale of the land that requires treatment, pointing out that, while treatments are ramping up, only about 30,000 to 40,000 acres are currently treated each year. Mr. Racher said that treating 135,000 acres per year would require 20 years in order to treat all of the forest land in New Mexico. He also noted that a long-term funding commitment is the key to addressing the issue.

Questions and comments from the committee included:

- between 50 percent and 60 percent of the forested acreage in New Mexico is on federal land;
- prioritization of watersheds for treatment;
- treatment of federal land is not necessarily more difficult than state land, as different forests have different permitting requirements;
- the makeup of the watershed restoration subcommittee;
- current funding amounts and sources;

- state funding can be leveraged for additional federal funding;
- healthy forests have about 50 to 60 trees per acre, while untreated forests average about 2,000 trees per acre;
- projects that are ready to go with good local partnerships tend to be prioritized first;
- private industry investment is the key to treating forests on a large scale, but without long-term funding of projects, industry will not risk investing in infrastructure;
- the U.S. Forest Service's approach changes when other entities have money available to begin treating forests;
- if New Mexico can develop a long-term funding source, the federal government will provide matching funds;
- some forests will require annual treatment, while others will remain healthy for much longer;
- soil and water conservation districts can do some treatments on private land;
- the use of nonrecurring funding for these types of ongoing projects is not ideal;
- participation from the forest products industry would help provide some private investment;
- catastrophic fire will likely strike a relatively large city sometime in the future if watersheds go untreated; and
- the legislature needs to continue working toward a dedicated funding stream to which the governor will agree.

New Mexico Bureau of Geology and Mineral Resources/Aquifer Mapping Program: Regional to Watershed Scale Hydrogeology Studies

Matthew Rhoades, state geologist and director, New Mexico Bureau of Geology and Mineral Resources (NMBGMR), New Mexico Institute of Mining and Technology (NMIMT), provided the committee with an overview of the Aquifer Mapping Program.

Stacy Timmons, Aquifer Mapping Program manager, NMBGMR, NMIMT, began by explaining that New Mexico's geology and aquifers are very complex, comparing them to the relatively simple geology of a state like Nebraska. She explained that the Aquifer Mapping Program addresses the quantity, quality and distribution of ground water in New Mexico. Ms. Timmons also noted that the program has a number of partners and users, including governments, national laboratories, counties, municipalities, irrigation districts, academic institutions, water utilities and tribal entities. She went on to explain that although each project is unique, they all try to provide information to aid in better decision-making. Ms. Timmons also discussed the basics for an aquifer mapping project, including data collection and development of conceptual models.

Geoffrey Rawling, field geologist, NMBGMR, NMIMT, provided the committee with an overview of a project studying the hydrogeology of the southern Sacramento Mountains. He discussed the various methods of data collection and the relationship between water levels and precipitation in the area and showed the committee a conceptual model built for the study. He explained the study showed that approximately 75 percent of the recharge for the Roswell

Artesian Basin occurs above 7,800 feet, primarily from snowmelt, and averages 129,599 acre-feet per year.

B. Talon Newton, hydrogeologist, NMBGMR, NMIMT, also provided the committee with data regarding recharge to the Sacramento Mountains and Roswell Artesian Basin, with a focus on the effects of tree thinning on water supply. He explained that the ideal conditions for increasing water yield by thinning trees require above-average precipitation, low temperature, thin soils and geologic conditions that allow water to enter ground water or surface water quickly.

Questions and comments from the committee included:

- the relationship among watersheds, aquifers and areas downstream means that aquifer recharge and watershed health in one area can affect other areas;
- most recharge of aquifers happens at higher elevations, in part due to higher snowfall and lower evapotranspiration;
- some regional data exist for brackish aquifers, but statewide data are less available;
- the NMBGMR is digitizing the legacy data on aquifers around the state; and
- the age of water in the aquifer underlying the Plains of San Agustin is very old, and it is not clear to which river basin the aquifer is connected.

Water Leasing Procedures

Christopher Lindeen, deputy general counsel, Office of the State Engineer (OSE), gave an overview of current OSE practices regarding water leasing. He explained that the Water-Use Leasing Act provides a temporary way to transfer water in non-emergency situations, and that the OSE provides preliminary approval for transfers once several conditions are met, including evaluation by the OSE of hydrogeology and potential impairment, publication of the preliminary approval and protection of ground water and surface water. Mr. Lindeen also noted that some leasing act transfers are for oil and gas development. He acknowledged that some concerns have been raised regarding current practices, and he said that the OSE is working to address those concerns.

Paula Garcia, executive director, New Mexico Acequia Association, also discussed the leasing program and changes to it proposed by two bills during the 2015 legislative session. She explained that one bill, Senate Bill 493, would have clarified that a water use may only become effective after the application has been approved by the OSE in accordance with the statutes that require a public hearing if a protest has been filed. Ms. Garcia said that the other bill, Senate Bill 665, would have made several changes to state water law, including granting immediate use to applicants without a hearing in certain instances. She said that the practice of granting preliminary approval raises serious concerns about due process and the protection of existing water rights.

Liz N. Taylor, an attorney for Rock House Ranch, said that due process is protected when the OSE issues preliminary approval because the office conducts an evaluation for potential impairment, and several other conditions, such as publication, must be met. She also noted that the typical permitting process, including protests and hearings, is still followed. Ms. Taylor pointed out that acequias and community ditches have additional protection, as they can deny lease applications even before OSE consideration. She also said that leases aid in economic development, particularly in the oil and gas industry, and benefit farmers and even some environmental purposes.

Steve Hernandez, an attorney for the Elephant Butte Irrigation District, said that there are some due process problems with allowing preliminary approval of lease applications. He explained that granting preliminary approval means that protestants have no chance to bring experts before a hearing officer and that ground water pumping will continue over the 12 to 18 months it takes before a hearing can be held. Mr. Hernandez said some water rights holders are being harmed by lease transfers, and there are no remedies for those people who have already been harmed.

Alvin Jones, an attorney for the Southern Rio Grande Diversified Crop Farmers Association, explained that the association is part of a larger group of farmers who came together during adjudication of the lower Rio Grande, most of whom are ground water users. He explained that there are no statutory provisions for emergency ground water transfers, which means that the Water-Use Leasing Act is an integral and vital tool for managing water in times of drought. Mr. Jones said that while there are concerns about the act, farmers rely on water leasing as an essential tool for water management in New Mexico. For example, Mr. Jones said that while some farmers can fallow their land during water shortages, others, such as pecan growers, cannot adapt and rotate their crops. He said that water banking is an essential tool for moving water to users who cannot fallow their land, and he anticipated that the Active Water Resource Management rules would allow for the adaptive and flexible response needed to manage water in times of shortage.

DL Sanders, an attorney speaking on behalf of Lea County, said that the county supports efforts to amend the Water-Use Leasing Act, adding that the solution is not the status quo, but improving it. He noted that there is no remedy for water rights owners whose water rights are impaired by a temporary diversion. Mr. Sanders suggested that an expedited hearing process be developed to give protestants an opportunity to be heard in a timely fashion. He also suggested that water banking could help address water shortages and priority calls.

Questions and comments from the committee included:

- whether "emergency" is defined in statute;
- priority dates do not necessarily matter regarding impairment;
- whether an owner's misuse of water is an emergency;
- even in an emergency, only a well for the same use is allowable;

- ground water rights can be transferred under the Water-Use Leasing Act, but not in an emergency;
- water rights owners need to be given the opportunity to protect themselves from erroneous decisions;
- mostly ground water rights are leased, but some surface rights may be leased, too;
- who has standing to protest a lease of water;
- reversals of preliminary approval by the OSE;
- withdrawal of a lease application by the Village of Ruidoso;
- the lease statute has been in place since 1967, but there were very few applications until the early 2000s; and
- the OSE and stakeholders will continue to work on the issue until a solution that works for most everyone is developed.

Federal Endangered Species Act of 1973 Requirements and Compliance Costs of the Interstate Stream Commission

Rolf Schmidt-Petersen, Rio Grande Basin manager, Interstate Stream Commission (ISC), provided the committee with an overview of the federal Endangered Species Act of 1973 (ESA) and its impact on New Mexico's water management. He began by explaining that all federal agencies are required to address the ESA and that saying no is not an option. Mr. Schmidt-Petersen noted that ESA compliance can significantly affect water operations and that New Mexico water users may be negatively affected by it. He went on to discuss creation of the strategic water reserve, a pool of publicly held water rights dedicated to keeping New Mexico's rivers flowing to meet the needs of river-dependent endangered species and fulfill New Mexico's compact delivery obligations to other states. Mr. Schmidt-Petersen also discussed other strategies employed by the ISC, such as proactively addressing endangered species issues and leveraging federal funds and programs to meet goals. He also explained that the ISC's water operations involvement covers endangered species in the San Juan River, Pecos River, middle Rio Grande and Canadian River basins. Mr. Schmidt-Petersen also said that the ISC has spent about $24.5 million on ESA compliance since 2001 and that expenses have averaged about $1 million per year over the last seven years.

Mr. Schmidt-Petersen went on to discuss the Rio Grande Basin and actions the ISC has taken to address ESA issues there, such as developing flexibility to operate the reservoir system, conducting reservoir and river water calls, developing species habitat and raising and studying the Rio Grande silvery minnow in hatcheries.

Greg Lewis, Pecos River Basin manager, ISC, discussed the Pecos River Basin and the ISC's endangered species actions there. He began by providing the committee with a brief history of endangered species on the Pecos River, particularly the Pecos bluntnose shiner. Mr. Lewis went on to discuss development of the Vaughan Conservation Pipeline, a collaboration between the ISC and the federal Bureau of Reclamation (BOR) that uses 10 wells and a pipeline to augment Pecos River flows above critical habitat areas. He also explained that the Pecos

bluntnose shiner is currently recovering after extreme drought in the area and praised the Vaughan Conservation Pipeline as an essential water management tool.

Mr. Schmidt-Petersen and Mr. Lewis also summarized ESA efforts in the San Juan Basin, particularly regarding the Colorado pikeminnow and the razorback sucker, both of which appear to be surviving and are expected to be downlisted by 2023.

Questions and comments from the committee included:

- the veto of funding for ISC staff;
- a BOR grant is decreasing, and the ISC's goal is to reduce dependence on that grant and create a permanent position using general fund money;
- contamination of water by a broken casing on a well near the Pecos River;
- although the Pecos River has run dry at times, the Pecos bluntnose shiner has managed to survive;
- New Mexico spends at least $3.3 million per year across several agencies on ESA compliance;
- many residents are unhappy with the ESA and are in favor of overhauling it;
- about $40 million to $50 million in federal money is spent annually in New Mexico on flood protection and water delivery, along with $8 million to $15 million on the Middle Rio Grande Endangered Species Collaborative Program, a state-federal cost-sharing program; and
- federal and state money is spent on leasing water, hatchery programs, scientific studies and monitoring of endangered species.

The committee recessed at 5:25 p.m.

Friday, October 16

The committee reconvened at 9:00 a.m. On a motion made, seconded and passed, the minutes of the July 27 meeting of the committee were approved as submitted.

Department of Game and Fish Report on Elk, Antelope and Deer Populations

Alexa Sandoval, director, Department of Game and Fish, provided the committee with an overview of the department's operations, beginning with maps showing the various elk herd units in New Mexico.

Stuart Liley, Big Game Program supervisor, Department of Game and Fish, began by providing the committee with specific information for several elk herd units, highlighting changes made to address various issues in each region, such as development of new hunts to address depredation, increases in the issuance of licenses, harvest numbers and population estimates.

Mr. Liley went on to discuss the pronghorn antelope population in New Mexico, noting that while drought conditions between 2011 and 2013 affected fawn survival rates, some areas have experienced population increases in 2014-2015. He pointed out that other factors, such as predation and habitat loss, likely contributed to survival rates. Mr. Liley also discussed efforts to capture and relocate pronghorns, noting that more than 500 have been captured and relocated in the past two years as a means of decreasing agricultural issues while supplementing struggling populations. He cited a 90 percent survival rate among relocated pronghorns one year after relocation. Mr. Liley also noted a pronghorn fawn survival research project near Fort Stanton, which showed that the primary known cause of fawn mortality is predation.

Mr. Liley also discussed the deer population in New Mexico. He said that population declines have been observed statewide, as well as low harvest success rates, acknowledging that the department has received extensive public comment regarding reduced hunting opportunities. Mr. Liley said that deer license number have been reduced by about 11.5 percent statewide in an effort to increase hunter success and satisfaction. He also showed the committee a map indicating license reductions by region.

Finally, Mr. Liley discussed a mule deer and cougar interaction study geared toward assessing cougar kill rates and deer mortality rates to help inform herd management recommendations.

Questions and comments from the committee included:

- cougars are the primary predators of elk, although some are killed by bears;
- the effect of wolves on the elk population is not significant, but that may rise significantly in two to three years if the pattern follows what happened in Yellowstone National Park;
- there has been an increase in the whitetail deer population, while the mule deer population has declined, in part due to habitat and diet differences;
- birth and survival rates of twin pronghorns depend on moisture and drought conditions;
- population estimates are based on aerial surveys conducted once per year, in addition to some ground crews;
- Department of Game and Fish management plans consider the survival of multiple species, while the U.S. Fish and Wildlife Service's wolf reintroduction plan focuses on the survival of a single species to the possible detriment of other species;
- the issuance of elk permits is based upon the estimated harvest of 30 percent of the population in a particular region;
- a request by the commissioner of public lands to increase the cost of leases issued to the Department of Game and Fish from about $200,000 to $1 million and ongoing negotiations between the two agencies;
- the Department of Game and Fish is tasked with ensuring the survival of all species, including wolves;

- the U.S. Fish and Wildlife Service is the lead agency on the reintroduction of the Mexican gray wolf, and the Department of Game and Fish defers to it;
- conflicting plans regarding wolves have been issued by the U.S. Fish and Wildlife Service;
- in attempting to address estimated growth in the cougar population in New Mexico, the State Game Commission added trapping as an additional means of capture but did not increase its cougar harvest quotas;
- the Department of Game and Fish can manipulate some factors affecting the declining deer population, such as habitat and predation, but not drought conditions;
- the elk herd in New Mexico is estimated at 70,000 to 90,000;
- the cougar population in New Mexico is estimated to be between 3,500 and 5,500;
- small landowner permits for game depredation are issued on a case-by-case basis;
- the Department of Game and Fish has no plans to alter its depredation or small contributing ranch programs;
- cougars destroying private property can be killed, but the Department of Game and Fish requires notification within 24 hours of such incidents;
- the Department of Game and Fish has committed almost $30 million for large-scale habitat restoration;
- big game license procedure is based on a lottery, with a nonrefundable application fee and a refundable license fee required of lottery participants;
- late-season hunt procedures are developed by considering conditions and various other issues;
- the Taxation and Revenue Department has requested the Department of Game and Fish to provide it with data regarding participants in the E-PLUS private lands use program in reference to possible income tax issues;
- the Department of Game and Fish is negotiating with the State Land Office regarding increased access to public land in conjunction with the commissioner of public lands' request for increased lease amounts; and
- the Department of Game and Fish owns about 175,000 acres of land.

Oil and Gas Industry Update

Wally Drangmeister, vice president and director of communications, New Mexico Oil and Gas Association, began by providing the committee with an overview of the oil and gas industry in New Mexico, including the number of producing wells, jobs associated with the industry and the overall impact on New Mexico's general fund, severance taxes and royalties. Mr. Drangmeister also discussed oil prices and production in New Mexico, explaining that although crude oil prices have dropped significantly in recent months, New Mexico is on pace for record production levels, which has helped to offset low prices somewhat. Mr. Drangmeister went on to discuss industry improvements and new technologies, such as increased efficiencies in well drilling and operations and better planning for use of capital investments. He also discussed challenges facing the industry, such as a low price environment and costly local and federal regulations. Mr. Drangmeister also discussed federal issues, particularly the ban on oil exports and the potential benefits the industry could enjoy in New Mexico if the ban is lifted.

Claire Chase, director of governmental affairs, Mack Energy Corporation, echoed Mr. Drangmeister's comments. She also provided the committee with an overview of Mack Energy's operations in New Mexico and elsewhere, pointing out the company's scholarship program for high school students in Artesia. Ms. Chase also discussed energy policy in New Mexico, noting that leadership from the state could help the industry, citing the passage of a bill in Texas that preempts local government laws that could hinder oil and gas development.

Questions and comments from the committee included:

- Mack Energy's scholarship program also requires recipients to perform community service in both Artesia and the community around their college;
- Mack Energy has paid about $1.5 million in scholarships to date;
- oil well production increases are mostly due to horizontal drilling technology;
- the United States has a stable supply of oil, but geopolitical factors could undermine that stability;
- the United States does import oil from countries such as Mexico and Venezuela, which does affect the price;
- regulatory and permitting issues make it unlikely that lifting the oil export ban will lead to construction of additional refineries in the United States;
- domestic and international markets for liquified natural gas are different, but facilities to liquify natural gas are unlikely to be built within the United States; and
- some facilities to liquify natural gas are being installed on transport ships to avoid regulatory environments within the United States.

There being no further business, the committee adjourned at 12:20 p.m.